

## Safety Report

Bob Casey

ASSOCIATE CHAIR FOR ESH

### Organization and Mission

Environmental, Safety, and Health (ESH) performance within the NSLS and at BNL in general remains an important issue for all NSLS staff, PRT members, and general users. The Annual Report provides an excellent opportunity to comment on past ESH performance and important changes in program requirements, and to identify issues that will be of importance in the year ahead.

### 2003 Activities

Calendar year 2003 was particularly dynamic for ESH in a number of important areas:

**ESH Responsibilities of PRT Members and Beamline Staff:** The ESH responsibilities of PRT members, beamline staff members, and investigators/users were better defined in 2003 to ensure that roles were clearly understood by all. A summary of the roles and responsibilities can be found at: <http://www.nsls.bnl.gov/organization/ESH/safety/r2a2.htm>.

**Training:** There has been a major emphasis at BNL on training for all staff members and guests. This year we increased the previous training requirements for resident beamline staff and users routinely present at the NSLS to provide a more detailed understanding of ESH requirements that are applicable to common situations in our work place. These training requirements can be found at: <http://www.nsls.bnl.gov/training/Requirements/Resident-User-Training.htm>. Training for our short-term users can be found at: <http://www.nsls.bnl.gov/training/Requirements/User-Training.htm> and is unchanged from previous years.

**Work Planning:** Work planning is the process for evaluating work to ensure identification of hazards and the establishment of appropriate controls. The work planning process for experimental research at the NSLS has worked well for many years and is implemented through the Safety Approval Form (<http://130.199.76.84/safety/default.asp>) process. Work at the beamlines, however, can involve beamline staff in routine activities that are not reviewed as a part of the SAF process (e.g. day-to-day work in maintaining a beamline, and modifications or additions to beamline components). Work planning requirements were revised this year to capture these type of activities and are identified at <http://www.nsls.bnl.gov/newsroom/publications/manuals/eshguide/D>. The requirements are graded based on the level of training of beamline staff. More detailed NSLS guidance may be obtained at: <http://www.nsls.bnl.gov/newsroom/publications/manuals/prm/LS-ESH-PRM-1.3.5a.html> and <http://www.nsls.bnl.gov/newsroom/publications/manuals/prm/LS-ESH-PRM-1.3.6.html>.

**TLD Requirements for Access to the Experimental Floor:** The requirements for wearing a TLD while working on the experimental floor were relaxed this year for many of our short-term users. Only users routinely working at the NSLS throughout the year, or those who fall into special



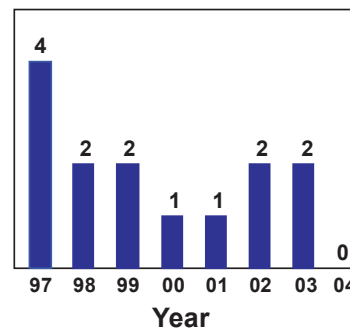
categories (e.g. working with radioactive materials, women with declared pregnancies, minors, or those working in the Bldg. 729 Controlled Area) are required to wear a TLD. Details of the new requirements can be found at: <http://www.nsls.bnl.gov/organization/ESH/temp/tldchange.htm>. It is very important to note that training requirements for access to the floor remain the same as previous years.

**Laser Use:** A serious eye injury occurred to a graduate student working in a different department at BNL when he inadvertently exposed himself to a high power laser. All laser use at BNL was suspended by the Laboratory Deputy Director pending a review to confirm that practices with each laser complied with the requirements of the BNL Standard for Lasers (<https://sbms.bnl.gov/standard/2g/2g00t011.htm>). All lasers at the NSLS were eventually restarted, but extensive stoppages were experienced. All users who plan to bring or use existing lasers should anticipate detailed reviews and contact the NSLS Safety Officer well in advance of arrival. Users of Class 3b/4 lasers must prepare written procedures, receive additional training, and complete a medical eye examination prior to use of the laser. These requirements are time consuming. Whenever possible, use of lower power lasers (i.e. Class 2 or 3a) will greatly simplify review requirements. Use of any laser in an experiment must be described in the Safety Approval Form (<http://130.199.76.84/safety/default.asp>). Additional NSLS guidance may be obtained at: <http://www.nsls.bnl.gov/newsroom/publications/manuals/prm/LS-ESH-PRM-2.3.1.html> (Laser Safety Program Requirements).

**Conclusion:** The user community has responded well to the high level of expectations for safety performance at the NSLS. Prominent and high level presentations were made at the Annual Users' Meeting, and safety is a topic at every Town Meeting. On the other hand, we have had our share of problems, and the BNL Director and the head of the DOE Office of Science have stated on several occasions that science carried out in an unsafe environment will not be supported. It is important for everyone to understand that a safe environment is much more than just an injury-or incident-free environment - positive attitudes and compliance with requirements are equally important.

I think our ESH program continues to be strong, and the improvements of the past year will serve us well. We need a successful safety program, and that requires ongoing awareness, involvement, and commitment from everyone. One incident or injury can quickly over-ride and out-shine many successes. Whether at your home institution or at the NSLS, keep an eye on the workplace and your co-workers. Make sure that all requirements are respected and that work is conducted safely. We all have a stake in safety performance.

Please let me know if you have any comments or suggestions.



Lost time injuries per year since 1997.  
In 2004, we are striving for zero injuries.